

Claims

- [c1] 1. A safety device in a tipping dump body (2) of a truck (1), in which the dump body (2), through the operation of a control (11) in the driver's cab (4) of the vehicle (1) and by means of at least one preferably hydraulic lifting cylinder (5) is designed to be moved between a lowered transport position (6) and a raised tipping position (7), and to assume a floating position, in which the lifting cylinder (5) is not pressurized and a holding position in which the lifting cylinder (5) is pressurized and the position of the dump body (2) is locked, said safety device comprising:
a detector (13) designed for detection of the driver's presence in or absence from the driver's cab (4), and that either a presence signal or an absence signal is delivered to the control (11) depending on whether or not the driver is in the driver's cab, and
the control (11) being designed, in the event of an absence signal from the detector (13), to assume the holding position.
- [c2] 2. The safety device as recited in claim 1, wherein the detector (13) is fitted on or adjacent to the driver's seat (12) in the vehicle (1).
- [c3] 3. The safety device as recited in claim 1, wherein the control (11) is provided with an operating lever (14) that is spring-loaded in such a way that it endeavors to assume the holding position.
- [c4] 4. The safety device as recited in claim 3, wherein the control further comprises: a mechanical catch member (21), which in an operative position is designed to allow the operating lever (14), and hence the dump body (2), to be placed in the floating position, and in an inoperative position is designed to permit return of the operating lever (14) to the holding position by means of spring loading.
- [c5] 5. The safety device as recited in claim 4, wherein the catch member (21) is designed to interact with a solenoid (23), coupled to the detector, which solenoid (23) is designed to be activated in the event of a presence signal from the detector (13) and thereby to bring the catch member (21) into its operative position and also to be deactivated in the event of an absence signal from the detector and thereby to bring the catch member (21) into an inoperative

position.

- [c6] 6. The safety device as recited in claim 5, wherein the catch member (21) further comprises:
a clevis arm (24) having a first end section (25) adapted for engagement with the solenoid (23), a second end section (26), to which the clevis arm 24 is pivoted about a suspension axis (27) fixed in the body (15) of the control (11), and an intermediate section (28), the underside (29) of which has a profiled engagement surface (30) for interlocking engagement with a pin (31) projecting essentially at right angles from the operating lever (14).
- [c7] 7. The safety device as recited in claim 6, wherein the engagement surface (30) of the clevis arm (24) comprises a first slotted segment for interaction with the pin (31) of the operating lever (14) and a second slotted segment (32) for interaction with the pin (31) is formed on the underside (33) of a bridging section (34) of the body (15) of the control (11) extending parallel to the clevis arm (24).
- [c8] 8. The safety device as recited in claim 7, wherein the first slotted segment of the pivoted clevis arm 24 has a downwardly projecting catch heel (35) situated adjacent to the floating position of the operating lever (14), the catch heel (35) being designed to positively lock the pin (31) of the operating lever (14) when the clevis arm is in its operative position and the operating lever (14) is in the floating position.
- [c9] 9. The safety device as recited in claim 7, wherein the second slotted segment (32) has a recess for the pin of the operating lever (14), the recess (36) corresponding to the holding position.
- [c10] 10. The safety device as recited in claim 4, wherein the control (11) comprises a manually activatable locking device (37) designed, on activation, to lock the catch member (21) in its inoperative position, the operating lever (14) being moved into or retained in the holding position by the spring loading.
- [c11] 11. The safety device as recited in claim 5, wherein the detector (13) comprises an electrical circuit-breaker, the presence signal corresponding to the closed

position of the circuit breaker and the absence signal corresponding to the open position of the circuit breaker.

[c12] 12. A safety procedure for the operation of a dump body (2) of a truck (1), in which the dump body (2) through the operation of a control (11) in a driver's cab (4), and by means of at least one preferably hydraulic lifting cylinder (5), is moved between a lowered transport position (6) and a raised tipping position (7), and furthermore assumes a floating position, in which the lifting cylinder (5) is not pressurized and a holding position in which the lifting cylinder (5) is pressurized and the position of the dump body is locked, the safety procedure comprising:

detecting, via a detector (13), a driver's presence in, or absence from, the driver's cab (14), and delivering either a presence signal or an absence signal to the control (11) depending on whether or not the driver is in the driver's cab (4), and causing the control (11) to assume, in the event of an absence signal from the detector (13), the holding position.

[c13] 13. The safety procedure as recited in claim 12, further comprising: providing the control (11) with an operating lever (14) that is spring-loaded in such way that it endeavors to assume the holding position.

[c14] 14. A safety procedure for the operation of a dump body of a truck, the procedure comprising:
adapting a truck with a dump body with a sensor that senses the presence of an operator in a cab of the truck;
providing a control arrangement that manages movement and control of dumping functions of the dump body, including locking the dump body against movement;
detecting the absence of an operator in the cab of the truck; and
locking the dump body of the truck against motion in response to detection of the absence of an operator in the cab of the truck.

[c15] 15. The safety procedure as recited in claim 14, further comprising:
positioning a sensing device in a drivers seat located in the cab of the truck that

is adapted to produce different signals depending on whether an operator is sitting in the seat.

- [c16] 16. The safety procedure as recited in claim 15, further comprising:
positioning an input control device adjacent to the drivers seat that is manipulatable by an operator to control operation of the dump body of the truck; and
biasing the input control device to a position that locks the dump body of the truck against motion.
- [c17] 17. The safety procedure as recited in claim 16, further comprising:
providing a pivotable catch member at the input control device having a profiled engagement surface adapted to catch at a predetermined position for locking the input control device in a floating position that permits motion of the dump body of the truck.
- [c18] 18. The safety procedure as recited in claim 16, further comprising:
providing a pivotable catch member at the input control device having a profiled engagement surface adapted to catch at a predetermined position for locking the dump body of the truck against motion.
- [c19] 19. The safety procedure as recited in claim 17, further comprising:
configuring the pivotable catch member to include a pair of clevis arms and pivotably connecting one end of the pair of clevis arms to an actuating solenoid.
- [c20] 20. The safety procedure as recited in claim 14, further comprising:
utilizing a circuit breaker in the sensor that is adapted to indicate the presence of an operator in the cab of the truck when in a closed configuration and to indicate the absence of an operator in the cab of the truck when in an open configuration.